NATIONAL ASSOCIATION
of CORPORATION SCHOOLS

BULLETIN

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Volume V | February, 1918

THE MONEY VALUE OF EDUCATION

Putting it in dollars and cents what is an education worth? Earning capacity is a thing most of us are vitally interested in.

There has been much discussion from time to time and considerable speculation as to the money value of an education. In this issue of the BULLETIN is presented a comprehensive compilation of authoritative data which seem to answer this question fully. The answer also clearly indicates that under present conditions of life the person without an education is so seriously handicapped and his chance to attain success is so small as to admit of little encouragement and less reward.

PUBLISHED BY ORDER OF THE
EXECUTIVE COMMITTEE

The National Association of Corporation Schools

Headquarters, 130 East 15th Street, New York City

Objects

Corporations are realizing more and more the importance of education in the efficient management of their business. The Company school has been sufficiently tried out as a method of increasing efficiency to warrant its continuance as an industrial factor.

The National Association of Corporation Schools aims to render new corporation schools successful from the start by warning them against the pitfalls into which others have fallen and to provide a forum where corporation school officers may interchange experience. The control is vested entirely in the member corporations, thus admitting only so much of theory and extraneous activities as the corporations themselves feel will be beneficial and will return dividends on their investment in time and membership fees.

A central office is maintained where information is gathered, arranged and classified regarding every phase of industrial education. This is available to all corporations, companies, firms or individuals who now maintain or desire to institute educational courses upon becoming members of the Association.

Functions

The functions of the Association are threefold: to develop the efficiency of the individual employe; to increase efficiency in industry; to have the courses in established educational institutions modified to meet more fully the needs of industry.

Membership

From the Constitution—Article III.

SECTION 1.—Members shall be divided into three classes: Class A (Company Members) Class B (Members), Class C (Associate Members).

SECTION 2.—Class A members shall be commercial, industrial, transportation or governmental organizations, whether under corporation, firm or individual ownership, which now are or may be interested in the education of their employes. They shall be entitled, through their properly accredited representatives, to attend all meetings of the Association, to vote and to hold office.

SECTION 3.—Class B members shall be officers, managers or instructors of schools conducted by corporations that are Class A members. They shall be entitled to hold office and attend all general meetings of the Association.

SECTION 4.—Class C members shall be those not eligible for membership in Class A or Class B who are in sympathy with the objects of the Association.

Dues

From the Constitution—Article VII.

SECTION 1.—The annual dues of Class A members shall be $100.00.

SECTION 2.—The annual dues of Class B members shall be $5.00 and the annual dues of Class C members shall be $10.00.

SECTION 3.—All dues shall be payable in advance and shall cover the calendar year. New Class A members joining between January 1st and April 1st, shall pay first year's dues of $100.00; those joining between April 1st and July 1st, shall pay nine months' dues or $75.00; those joining between July 1st and October 1st, shall pay six months' dues or $50.00; those joining between October 1st and December 31st shall pay three months' dues or $25.00, but for subsequent years shall pay full dues of $100.00. Any members in arrears for three months shall be dropped by the Executive Committee unless in its judgment sufficient reasons shall exist for continuing members on the roll.

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The National Association of Corporation Schools

BULLETIN

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VOCATIONAL TRAINING THE CRY OF ALL NATIONS

The Philadelphia *Public Ledger* recently contained an article under the caption: "Vocational Training the Cry of All the Nations at War." The editor of the *Public Ledger* is rather optimistic over the outlook for the development of better vocational training in the United States:

"While the war has rather obscured the issue, the country is on the edge of a development of vocational training through Federal stimulus which will surpass in time the establishment of the agricultural colleges under Federal influence during the Civil War."

The efforts being made and to be made for better training in the other leading nations of the world have become familiar to readers of the BULLETIN. France, Great Britain, Germany and Japan are all giving careful consideration to their training needs, but in the United States, while much has been done, there is still much more to be done.

From a recent bulletin issued by the National Society for the Promotion of Industrial Education we take the following extract:

"Every year an army of fourteen-year-old children, 1,000,000 strong, leaves school, never to return. More than half of the children who join this yearly exodus have not finished the elementary course. They have taken leave of school and teacher without having received the minimum of education required for intelligent citizenship and effective self-support. From the comparative shelter of the classroom, only one degree less safe than the home itself, they plunge, immature and unprepared, into the full exposure of industrial life.

"At least 2,000,000 boys and girls in this country not yet turned sixteen are working for wages. The industrial unpreparedness of this vast children's army brings hardships to the

worker and loss to industry. For millions of people it means cramped and limited lives; for the country it means industrial and commercial backwardness. Every effort which is made to prepare the young worker for economic independence is an effort to prepare our country for the greater industrial future which awaits it.

"Practical education alone can bridge the widening gap between academic schooling and industrial wage-earning. In our schools there is too little connection with life, and under the present system too many children leave school voluntarily because they lose interest in study. They still lack the development necessary to think out the problems of industrial life and to advance in their chosen vocation. Education that is concerned not with scholastic ideals but with daily living realities should be the primary function of our public schools. Public education must be adapted to the real needs of American youth, nine-tenths of whom take up, directly or indirectly, industrial careers and receive no benefit from the public high schools."

In this connection it must be borne in mind that the problem of properly educating and training all of the youths of the United States who will go into industrial pursuits is a problem greater than the facilities of our public school system can meet. The higher institutions of learning are helping through their changed curriculums to include instruction in business subjects, in agriculture and in household economics. But the industries must, for a time at least and to some extent permanently, supplement the education and training received through the public school system of special training through the Corporation School. The extent to which this supplemental training is given will, in a large measure, determine the efficiency of the industrial workers of this country.

THE DEVELOPMENT OF A NEW INDUSTRIAL PHILOSOPHY

Joe Mitchell Chapple, editor of the *National Magazine,* is supplying to business executives a letter series of personal interviews with men of the United States who are "doing things"—doing unusual things. One of the men Mr. Chapple interviewed was J. Ogden Armour. Our readers will be interested in some of the philosophy which Mr. Armour has woven into the basis upon which rests the business strength of Armour & Co.

This company has a creed: "Big men are only little men given a fair chance to grow." But how do men grow? We

assume that Mr. Armour was speaking of the mental qualities of men, and psychologists tell us that the brain grows the same as the muscle grows—it grows by development. Man attains muscular power or physical strength through proper exercise of his muscles, and man obtains mental power through proper exercise of his brain. The difficulty is the average man does not understand what is known about the science of psychology. Psychology is, of course, but a partially developed science. As a science it stands today where chemistry stood a hundred years ago, where the profession of engineering stood fifty years ago. It may be compared to the seience of teaching of forty years ago. It is a partially developed science, yet something is definitely known.

Those who have studied psychology and have a knowledge of consciousness, understand that there is a sub-conscious mind, and that all the individual acquires through vision and through hearing passes into the sub-conscious mind. It is understood by those who have studied psychology that only a very small fraction of knowledge can be in the conscious mind at any one time. It is also understood that thoughts which "come to us" come out of the sub-conscious mind into consciousness, and so the mental capacity of the individual grows through the process of acquiring knowledge and the exercise of the brain in the use of this knowledge. To summarize it may be said that the mental capacity of the individual is developed through education—cultural education, and through training—technical education.

The reason there is not greater incentive to study is because the average person does not retain in consciousness the knowledge which is gained, and one is apt to hear this expression: "Oh! I studied for so long a period, but I have forgotten practically all I learned." This is not true, unless the individual who gives expression to such a thought has refrained from exercising or using the knowledge gained. It is obvious that the trained mind works more scientifically than the untrained mind. One gets results through the use of facts—the other gets results through the wasteful, haphazard, blundering method of trying out experiments and trusting to luck that the results will be helpful.

Mr. Armour says other interesting things in his interview: "I have felt that in the last year corporations are coming closer to the people than ever before. We are not going to hear so much from the trouble makers. Why? Because the people are going to know exactly why and wherefore, and given the right impulse, their intelligence will carry them along the right road."

Mr. Armour explains his use of the word "impulse." He likens it as a sort of second cousin to enthusiasm. It seems to the writer that the better word would have been *information.* The big industrial corporations are beginning to take the people into their confidence. They are explaining their business methods, they are making clear to those whom they serve their purpose—their right to exist; the part they play in modern industry and the relation of industry to society as a whole. There is one further adjustment, and here also progress is being made. Perhaps the most notable example is that of the Marshall Field Company of Chicago. This great business is now owned and managed, subject to certain restrictions, by the employes of the company.

What American citizens want is equality of opportunity and equality of reward according to merit. This is the ideal. Of course it cannot be realized except through a process of adjustment and of education, but when there is a satisfactory distribution of earnings—fair alike to capital and labor, when there is equality of opportunity and a fair equality of reward according to merit, socialism, anarchy and the many other "isms" so prominent at the moment will no longer command a hearing or a following.

Mr. Chapple also interviewed C. Louis Allen, President of the Pyrene Manufacturing Company of New York. Mr. Allen is a splendid example of the executive who rises from the ranks. But a few years ago—some three or five years—he formed a connection with the Pyrene Company as a salesman. He worked and studied and his promotion was rapid until he was sales manager for that company; then a little later he became the company's president.

Mr. Allen is a man with a vision, and this is his vision as he described it in the interview:

"To see the attitude of business and its trained workers conform unanimously to the real necessities of the time. Today some concerns are enjoying immense profits, while others are on the verge of collapse on account of labor conditions and material costs. Such a situation would automatically adjust itself if the many would sacrifice with the few. The question in all our minds is, 'What after the war?' But that will depend entirely upon what we do during the war. Conditions after the war will take care of themselves if we look to conditions now."

What after the war? This is the thought in the minds of every executive of an industrial institution in the United States, and as Mr. Allen has expressed it, so far as the United States is concerned, conditions after the war will take care of themselves if we bring about the right conditions now.

THE NEED OF A COMPLETE MENTAL DEVELOPMENT

In the United States there is a vast undeveloped or partially developed mental capacity. To secure a complete development is the greatest problem that confronts us as a nation. The ideals of the citizens of the United States are unquestionably as clear and as comprehensive as the ideals of any other nation. Inherently the citizens of our country are the equal of the citizens of any other country, but we have not yet perfected educational and training systems which will develop the full mental capacity of our citizenry. The United States leads all other nations in the excellence of its equipment, on the farms, in the shops, in our transportation systems and in our homes.

The United States possesses over one-third of all the gold in the world and about one-third of all the wealth of the world. The health of the average American citizen is as good as the health of the average citizen of any other nation. Briefly, our immediate problem is to devise and enlarge our educational and training systems to insure a full and thorough development of the mentality of our youths, and to make the system retroactive, insofar as possible, to include our adults. When this task has been performed the United States will have reached a stage of efficiency that we may accept as normal and as satisfactory.

Incidentally the United States will then retain the leadership which has come to it as a result of the struggle now going on in Europe. Waste in its many forms will be minimized or eradicated. Our industries will be conducted scientifically as opposed to the present more or less haphazard conditions. There will be co-operative effort with only one end in view—the general welfare of our country and of the citizens of our country. No more patriotic service can be rendered than to aid in the perfection of this program.

SOUNDING A KEY-NOTE FOR A NEW PHILOSOPHY

In this issue of the BULLETIN appears an address prepared by L. E. Abbott, Safety Commissioner of the Oregon Short Line Railroad Company and class "A" representative of that company in our Association and delivered to the National Safety Council. Those of our members who know Mr. Abbott, who have met him at the annual conventions, will appreciate more than others can appreciate the true and humane philosophy which he has so earnestly set forth.

As Mr. Abbott says, the great problem of efficiency in industry is better understanding alike on the part of the stockholders and on the part of the employes. Loyalty is a reaction to a cause. It is an inherited quality but does not develop unless conditions are such as to stimulate interest and to cause that which is best in man to react to conditions which he approves and believes in.

"Increase in wage is not a complete remedy." Mr. Abbott is right. There must, of course, be a fair wage for fair service, but there must be more, there must be contentment; there must be a feeling that the worker is part of an organization which is efficiently serving society. Industry exists but to serve society, but industry has the right to demand that society grant sufficient revenue, sufficient profit that industry may be conducted efficiently and thus serve society well.

The same philosophy underlies industrial conditions as underlies other departments of modern life. The judge who sacrifices a large and remunerative practice that he may go on the bench and serve his fellow-man, is an excellent example which proves that man does not work entirely for momentary reward. Similar conditions may be found in other walks of life. The

man who believes he is performing a real service for his fellow-man is apt to be contented and happy in his work.

There are just as many good and true soldiers in industry as there are in military service, but as the soldier in military service must believe in his government and government's cause if he is to serve faithfully and well, so the worker in industry must believe in his company and that his company is performing a service to society as a whole, to be contented and happy in his labor.

Mr. Abbott has sounded a key-note in the development of this improved philosophy which has recently been so splendidly exemplified by presidents of great industrial corporations, by leaders in Wall street and by leaders of labor organizations.

Our country had but to call these men to service, and all thought of profit was abandoned and the response was immediate and full-hearted. So it can be in industry and so it will be when the new and better philosophy has been determined and fully instituted. It is the work of our Association. It is encouraging that our members are called on to advise such organizations as the National Safety Council. In Union there is strength, through "team work" the industries of the United States will ultimately reach a state of perfection which will serve as a beacon light to the industries of all the nations of the world.

INDUSTRIAL TRAINING FOR THE WAR EMERGENCY

In this issue of the BULLETIN there appears an article describing the activities of the section on Industrial Training of the Council of National Defense. Mr. Percy Straus, President of R. H. Macy and Company and Class "A" representative of that Company in our Association, is directing this work and collaborating with him are Mr. John Golden and Mr. C. R. Dooley, the latter one of the founders of our Association, a member of our Executive Committee and Educational Director for the Westinghouse Electric & Manufacturing Company. My Sydney W. Ashe, of the General Electric Company, and chairman of our Association's committee on Health Education, is chairman of the New England branch of the Industrial Training Section of the Council and is actively engaged in organizing the work in that territory.

It is expected that the entire country will be organized through the medium of training schools which will be started to meet the requirements of all the industrial institutions co-

operating with the Government, thus insuring efficiency in connection with the war.

At the January meeting of the Executive Committee of our Association, the work that the Industrial Training Division of the Council of National Defense is doing was endorsed. It is believed that when industrial instituions are brought to realize the value of training their employes with a view to obtaining greater efficiency that the movement will continue as a permanent part of industrial management after peace is declared.

NEW MEMBERS

Since the last statement appearing in the BULLETIN, the following new members have been received:

Class "A"

Jones & Baker, 50 Broad Street, New York City.—Mr. William R. Jones.

Wilson & Company, Chicago, Illinois.—Mr. Elbert Beeman.

Class "B"

Mr. Elvin McLeod—Jones & Baker, 50 Broad Street, New York City.

Miss Gertrude B. Thayer—Jones & Baker, 50 Broad Street, New York City.

Class "C"

Mr. F. W. A. Eiermann—1018 Peach Street, Erie, Pa.

Mr. C. L. Frederick—Remington Typewriter Company, Portsmouth, Ohio.

Mr. Thomas V. Hodges—Semet-Solvay Company, Syracuse, N. Y.

Mr. Laurence W. Lane—Successful Farming Publishing Co., Des Moines, Iowa.

A Public Trade School for Girls in Philadelphia

The *Public Ledger* is urging the Board of Education of Philadelphia to take over the experimental trade school for girls which has heretofore been conducted as a private institution. Philadelphia, as the largest mill town in the United States, has led in the manual training movement and also in industrial art education. The city has a splendid trade school for boys and the taking over of the trade school for girls will be another step in the right direction.

THE PRESIDENT'S PAGE

WE BELIEVE

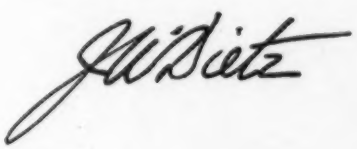
¶ That Education is a continuous process;

¶ That the vocational part of the process is of greater importance now than ever before;

¶ That it is good business to definitely teach persons in industry how to think and how to work, because it makes them more valuable to themselves and to industry;

¶ That educational institutions are eager and ready to co-operate to the mutual advantage of employe, employer and educator, if business will but take the initiative;

¶ That all employers are vitally interested in all these matters and should co-operate through the exchange of experiences not only for their own profit but for the good of industry as a whole.



THE MONEY VALUE OF EDUCATION

Putting It in Dollars and Cents, What Is an Education Worth?—After All, Earning Capacity Is the Thing That Most of Us Are Vitally Interested in—at Least Until We Have Accumulated Enough to Insure Independence—What Is the Value of an Education?—A Compilation of Data That Answers This Question.

In view of the many letters which come to the desk of the Executive Secretary containing the specific question: "What *material* benefits can be expected to accrue from such an Association as yours?" the re-publication in condensed form of a pamphlet just issued by the Government would appear not untimely. This pamphlet, entitled *The Money Value of Education,* has been prepared by A. Caswell Ellis, Professor of the Philosophy of Education at the University of Texas, and it is hoped that the information it contains may help to solve a number of problems which have been vexing the minds of both actual and prospective members.

Of course, in the very beginning of such a study as this, it is to be frankly admitted that in the case of the economic value of education, as of any other comparative study, absolutely accurate estimates are not possible. All sorts of factors become entangled with and becloud the main issue, and all sorts of allowances must be made before a reputable conclusion can be safely arrived at. However, all legitimate criticisms concerned with the necessarily partial nature of the investigation; the fact that men and women are a selected class to begin with; that racial and climatic differences must be taken into consideration; and that variations in natural resources are potent modifiers, etc., have all been adequately met, as will be readily seen by anyone sufficiently interested to read the entire pamphlet with care. Even the fact that the comparisons are based on figures which present world conditions have radically changed does not invalidate the results, since the effect upon both sides has been practically the same.

Professor Ellis has also met and answered the possible objection that the true aim of a right education is the broadening, deepening and refining of human life, not the assurance of a huge material success. That education does pay, even when measured by dollars and cents alone, is true, and in order that the deeper and higher rewards should not be missed, it is well

to point out in clear, understandable terms the definite ways in which education promotes industrial efficiency and tends to increase material wealth.

National Wealth and Power

The first comparisons drawn by Professor Ellis are national. Against the efficiency, economic prosperity, labor value, wealth, and power of Germany, Japan, Denmark, Scotland and Switzerland, where there is adequate provision for education, he sets the comparatively meagre results in the way of economic prosperity attained by Russia, Spain, Turkey and Mexico, where there is a lack of the necessary school system and where poverty, revolution and misery reign, regardless of race, climate or abundance of national resources.

In the United States it has been shown that the earning capacities of the citizens of the several states are in direct proportion to the efficiency of their school systems. In 1899 Massachusets gave her citizens seven years of schooling; the United States as a whole gave her citizens 4.4 years of schooling; Tennessee gave her citizens 3 years of schooling. On the other hand, Massachusetts citizens produced per capita $260 a year; citizens of the United States produced per capita $170 per year; and Tennessee citizens produced per capita $116 per year. The figures would be, of course, much higher for all today, but the relative standing of each would be the same. The production for 1909, as estimated from the figures given by the 1910, census would be: Massachusetts $466, the United States as a whole $332, and Tennessee $174. In 1899 Massachusetts spent $13,889,838.00, or $38.55 per pupil, on education. In the same year Tennessee spent $1,628,313.00, or $4.68 per pupil, on education. That year Massachusetts citizens produced on the average $144 each more than did Tennessee citizens, or a total of $403,969,824.00 more than Tennessee.

Similarly, Massachusetts, with a slightly smaller population than Texas, has $4,956,000,000 of accumulated wealth to $2,836,-000,000 possessed by Texas. That this is not altogether due to the fact that Massachusetts is a much older state than Texas is shown by the fact that Wisconsin, a comparatively new state with only about two-thirds the population of Texas, has an equal amount of wealth; and California, a still newer state, with only two-thirds the population, has $4,115,000,000 of wealth. All three of these richer states for years spent two or three times as much per child on education as was spent by Texas.

The relation of the productive power to education is also shown by the enormously increased rate of production that has come about everywhere since education became more generally diffused. The total wealth accumulated in America from 1492 to 1860, a period of 368 years, was $515 per capita. From then to 1904, a period of only 44 years, this figure increased to $1,318 per capita, or an addition in 44 years of $802 per capita. Since that time the increase has been even more striking. It is true that this increase is partly due to increased valuations or the smaller purchasing price of the dollar, to the use of accumulated capital, and to many other things; but after due allowance is made for all these the conclusion is inevitable that the education of the nation is partly responsible for vastly increasing the productive power of its citizens. The productive power of illiterate countries is not increasing at such a rate.

Education and Individual Success

That individual education is an equally vital factor in individual efficiency and success in the varied walks of practical life is a matter about which the facts are not so obvious, as the occasional large successes of comparatively unschooled men, and the not infrequent failures of men of much schooling have attracted disproportionate attention and obscured the more significant facts. But in recent years several studies have been made which show the influence of education upon individual success. As a result of these studies the following facts have been attested:

The child with no schooling has one chance in 150,000 of performing distinguished service; with elementary education he has four times the chance; with high school education, 87 times the chance; with college education, 800 times the chance.

Of the 100 wealthiest men in the United States it was found that in proportion to the total number in America possessing a college education, there were 277 times as many college-bred men who had amassed great wealth as there were of non-college-bred men. In proportion to their numbers in the population, college men have become members of the national House of Representatives 352 times as often as the non-college-bred man; members of the Senate, 530 times as often; President, 1,392 times as often; justices of the Supreme Court of the United States, 2,027 times as often. Of the more than 10,000 prominent and successful men in all lines mentioned in Appleton's Encyclopedia of American Biography who were still living when the book was published, 58 per cent were college graduates and 75 per cent

had had some college training. On the whole, the college-bred man had attained enough eminence to be mentioned in such a cyclopedia 870 times as often in proportion to his number as the non-college-bred man.

The study of the money value of the college-bred man is especially pertinent when it is remembered that not only do congressmen, cabinet officers, supreme court judges and presidents receive larger salaries than do average citizens, but, since they make, interpret and enforce the laws which govern customs, banking, transportation, corporations, policing and international relations, they exert a powerful and widespread influence upon national industry and wealth.

Financial Return of Education to the Individual

The financial returns which different grades of education make to the individual have also been made the subject of intensive study. A chart thus obtained shows that the laborer starts with $3 a week when he is 16, and may rise to $10.20 by the time he is 21, but he rises no higher. His potential value at that age (arrived at by capitalizing at 5 per cent the average annual earnings of 50 weeks of work) is $10,200. The apprentice or shop-trained worker starts at the same wages as the laborer at 16, but rises more rapidly, and is earning by the time he is 24 years old, $15.80. His potential value at that time is $15,800, but he makes no further rise. The trade-school graduate starting at the same point, rises still more rapidly, and is earning, when he is 25 years old, $22 per week, his potential value at this point being $22,000. From this point his wages rise less rapidly, reaching possibly $25 per week at the age of 32, representing potential value of $25,000.

The graduate of the technical school starts at the same point of a weekly salary of $3, and is earning $4 when he enters college at 18. Upon graduating from college at 22 he can earn $13 per week. He has then already passed the laborer but is still a little below the shop-trained apprentice. He passes the latter, however, during his first year of employment, but he is still below the trade-school graduate whom he does not overtake until his twenty-fifth year. From this point on he rapidly leaves behind the other three workers, and at the age of 32 is drawing $43 a week, his potential value being $43,000. Thus, four years training at a technical school makes a man, by the time he is 32, four times as valuable as the laborer; approximately three times as valuable as the shop-trained apprentice; and 72 per cent more

valuable than the trade-school graduate—surely a good return for four years spent in preparation.

Men of Education Fail Less Often

Even in the lowest grades of factory work the uneducated laborer is often unsuccessful. Only 35 per cent of the unskilled remain in the factory even in unskilled work, 5 per cent go somewhat higher, while 40 per cent have had to be dismissed and 20 per cent have left of their own accord for one cause or another.

A notable instance of the value of college men is furnished by the Western Electric Company which began employing college men about 10 years ago. The Company has found that 90 per cent of them make good as compared with 10 per cent of the men who enter business on leaving high or grammar school.

Statistics based on data gathered from the experience of 100 business houses and covering a period of three or four years show that about 90 per cent of the college men were successful in rising to large salaries and responsible positions as compared with 25 per cent of non-college men.

As a result of a study of 799 workers who had left school at either 14 or 18 years of age, the Massachusetts committee on industrial education found that boys who had remained four years longer in school, in order to take a technical course, soon caught up in salary with their brothers who stopped at 14, and went ahead of them so rapidly that by the time they were 22 years old the sum of the four years' salary of the better educated boys was equal to that of the eight years' salary of those who had quit school at 14. At the age of 25 the boys who had taken four years' extra schooling were on the average getting $900 per year more than those who left school at 14.

From the twenty-fifth year on the boys who had quit school at 14 would secure practically no promotion, whereas those who had remained in school till 18, and had, therefore, entered the higher-grade industries and positions, would continue to receive promotion and increase in salary for many years. If, however, it is assumed that each boy continues for the remainder of his normal working life to receive the same salary that he was paid at the age of 25 years, the boy who quit school at 14 would receive a total life income of $26,667, while the boy who remained until 18 would receive $58,900.

Wages of the Trained and Untrained

Another illuminating comparison is offered in an investiga-

tion of the wages received by girls in occupations demanding no training and those that do demand it. The minimum wage of three dollars and the maximum of $9 of girls from 14 to 20 years of age without training is offset by a minimum wage of $5 and a maximum of $20 paid to girls between the same ages but who have had training.

Education and Salaries in New York City

An investigation by a committee of the Brooklyn Teachers' Association showed that the average income of 192 boys, taken at random but all of whom had received elementary school training, was $1,253.05, whereas the average salary of the illiterate worker in Brooklyn was $500 a year.

Another committee discovered that of 1,600 pupils in the night schools those who had remained through the high school were already, at the end of two years, receiving higher salaries than those who quit at the eighth grade were receiving after more than five years' work.

The same committee compared the earnings of the children who left school at 14 years of age with those of the children who remained until they were 18. At 25 years of age the boy who had remained in school until he was 18 had received about $2,000 more salary than the boy who left at 14, and was then receiving over $900 per year more. From this time on the salary of the better educated boy will rise still more rapidly. Investigations in other cities show similar results.

Education and Farm Income in New York

A study of 1,303 farmers in four townships of Tompkins County, New York, showed that no college graduates had been reduced to the position of renters and that only 17 per cent of the renters had more than the district-school education. Of those with high school education, 20 per cent were making $1,000 per year, while only five per cent of those with district-school education were making that much. Statistics come from Indiana and Missouri to much the same effect.

Economic Results of Trade and Technical School Education

The results of the strictly technical or trade school education have been just as unmistakable as have been those of general culture. The Fourth Annual Report of the Trustees of the Beverly (Massachusetts) Industrial School gives the earnings from

year to year of the 12 graduates who had spent two and a half years in the school. This school requires, as part of its course of study, actual piece work in the mills. The wage-earning capacity of these boys when they entered school is conservatively estimated at $6 per week. Their wage-earning capacity at the time of graduation ranged from $15 to $18 per week. In 120 weeks of shop work, under school direction, the boys increased their average earning power, in competition with other workmen and under actual factory conditions, by more than 150 per cent and were, in fact, earning, at the close of the period, wages at the rate of $800 per year. That the practical machinists appreciate the value of this school work is shown by the fact that while only 5 machinists and metal workers sent their sons the first year, the following year 22 were sent—20 from one of the big factories in which the school boys had been given part of their practice work.

The wages of 829 of the graduates of the Baron de Hirsch Trade School were studied and gave the following interesting results: These graduates had entered the school at an average of 17½ years of age, when they were receiving an average of $6 per week with poor prospect of increase. Immediately on graduation they earned on an average of $7.28 per week and within two years were earning $12 per week with prospects of more or less steady further increase for the next 10 or 20 years. One hundred and fifty-eight machinists who entered at an average salary of $6.66 went back to work after a schooling of 5½ months at an average of $8.96 per week; 66 carpenters who entered at $6.14 went out at $9.01 per week; and 270 electricians who entered at $5.76 went out at $7.12 per week.

The wages of 25 graduates of the Milwaukee School of Trades who went into the pattern-making industry were compared with the wages of others who entered this field through apprenticeship. During the four years of their apprenticeship the apprentices each received a total of $1,433.75. During the first two years after leaving the trade school those entering the industry from the trade school received on the average a total of $1,635.92.

The New York Vocational School for Boys gives only two years' preparatory trade training to 14 year old boys or younger boys who have completed the grammar school. The records of the salaries of all the first graduates of this school, after six months of employment, as compared with non-graduates working in the same line, were as follows:

Trade	Average Wage of Graduate	Average Wage of Non-graduate
Architectural and Mechanical Drawing	$9.50-$11.50	$6.50
Carpentry	6.00- 11.25	4.74
Machine Shop	7.50- 13.13	$4.73- 6.18
Electric Wiring	8.40- 12.94	5.90- 7.25

There is much other testimony to the same general effect.

Corporation Schools

Further recognition of the value of education in increasing efficiency is seen in the establishment by the railroads and by numerous large business enterprises, at their own expense, of special courses including both night and day classes for their employes. The representative of a large railroad corporation has declared regarding the success of the institution of such a system:

"We have ascertained that the efficiency of apprentices has increased 25 per cent; that is, on account of our system of instruction, they are able to accomplish that much more work than they could before we adopted our present apprentice system. . . . We have found also that our graduated apprentices' earning capacity has increased 18 per cent over and above those who did not have the advantage of our apprentice instruction. This fact is particularly emphasized by our shop foremen, who greatly prefer having one of our apprentice graduates."

Salaries of College Graduates

There is much testimony as to the money value of a college education. The following are examples:

A study of the salaries received for the first five years by the students—both graduates and non-graduates—who went out from the Sheffield Scientific School of Yale in 1906, yielded these results:

First year	$683.85
Second year	898.30
Third year	1,257.24
Fourth year	1,686.14
Fifth year	2,040.04

A similar study of the Harvard law class, graduating in 1905, showed that two years after graduating, with 163 reporting, the graduates were receiving an average salary of $1,118, and that five years after graduation, with 151 reporting, the average had climbed to $2,616.

It should also be remembered that 10 years after his graduation the average college man is only a little over 30 years old and has a prospect of continued increase in salary for another 10 or 20 years.

The rate of increase in salaries from year to year of the students who have attended the Night School of Finance and Accounts of the University of Pennsylvania while continuing their regular business occupations during the day presents another remarkable instance of the immediate financial returns from education. Three hundred and fifty men graduated from this evening school in seven years, beginning in 1907.

Those students who entered in 1904 having an average salary of $1,040 have increased it on the average 22 per cent each year, and nine years later had an average salary of $3,120. Those who entered in 1905 with an average salary of $956, progressed even more rapidly, making gain in salary of 31 per cent a year, and reaching, in eight years, an average of $3,347 per year. The record for all classes taken together shows an average increase in salary of the entire body of graduates of 23 per cent a year. Business men are not in the habit of increasing the salaries of their employes 23 per cent a year, or giving to them average salaries of over $3,000. If these students are promoted at that rate and receiving such salaries, then their training in school must have given them an increased efficiency somewhat in proportion to their increased salaries.

Such studies as the above, while open to the criticisms already mentioned, have answered unmistakably the question as to whether the schools, with all their admitted imperfections, are preparing their pupils for greater economic efficiency. The figures show conclusively that the schools are giving their pupils greater earning power than even the strongest advocate of education had claimed. Inevitably, as the economic process becomes more complex, the relative need for directive force in industry becomes greater and greater. Experience has shown that only through a thorough system of public schools and colleges can a state or nation provide for itself an adequate supply of citizens capable of furnishing this necessary directive force.

MEETING OF EXECUTIVE COMMITTEE

The Question of Whether or Not Our Association Will Hold Its Annual Convention This Year Was Deferred Until the Next Meeting of the Board That Conditions at That Time May Be Taken into Consideration—If the Annual Convention Must Be Omitted Some Alternative Plan Will Be Worked Out—Our Association Endorsed the Work of the Industrial Training for War Emergency Division of the National Defense Council.

The meeting of the Executive Committee of our Association held in New York on Tuesday, January 8th, was well attended. President Dietz presided and Vice-President Rowe, Secretary Galloway, Messrs. Yoder, Park, Dooley, VanDerhoef and the Executive Secretary were present. Mr. Sydney W. Ashe, chairman of the Association's committee on Health Education was also present.

The minutes of the October meeting were read and approved.

The Assistant Treasurer submitted a report showing cash on hand as of January 1st of $1,350.38 and no liabilities.

The Executive Secretary presented a membership report showing an increase of seventeen new class "A" members since the October meeting, four class "B" and seven class "C". The Executive Secretary also reported that so far there had been six class "A" resignations for 1918.

A letter from The Curtis Publishing Company was referred to Mr. Mont. H. Wright.

Dr. Rowe reported progress in the matter of our Association's taking membership in the United States Chamber of Commerce.

Upon motion of Dr. Rowe seconded by Mr. Dooley the Executive Secretary was instructed to write a letter of thanks to the special membership committee for its excellent work.

Upon motion duly seconded Mr. E. C. Wolf's letter regarding the War Revenue Bill increasing the postal rates on magazines and newspapers, was referred to the committee on Public Policy.

A letter from Mr. Charles F. Horker, Director Speakers' Bureau, Washington, D. C., was referred to the Program Committee.

Upon motion of Dr. Rowe seconded by Mr. Yoder, Mr.

Alden's letter was referred to President Dietz and the Executive Secretary with power to act.

The matter of R. N. Rasely's letter concerning the Better Business Letter convention was referred to the President with instruction to invite this organization to affiliate with our Association.

Mr. Norman Collyer's letter concerning the work of his committee on Executive Training was referred to President Dietz.

President Dietz gave a brief summary of the committees and the work they are doing.

President Dietz brought up the question of the advisability of holding our convention this year, as in the past, and as previously planned. The matter was thoroughly discussed by the Executive Committee and then left for final decision until the next meeting of the Executive Committee with the understanding that transportation and other conditions may be so serious that some other alternative may have to be worked out.

Mr. J. H. Yoder reported progress in the research work of Dr. Kreuzpointner for the Employment Committee.

Mr. Sydney W. Ashe outlined the work of the Council on National Defense for Industrial Training for War Emergency and asked for the co-operation of our Association in the following ways:

First—By giving our active support.

Second—By giving publicity to the activities of the Council in our monthly BULLETIN.

Third—By advising inquirers where information may be secured regarding various educational problems.

The Executive Secretary was instructed to write Mr. Percy Straus, Chairman of the Executive Committee of the Council on National Defense for Industrial Training for War Emergency, a letter advising him our Association would gladly co-operate with him in every way possible.

The Executive Committee then adjourned subject to the call of the President.

Philadelphia Schools to Americanize Aliens

To Americanize aliens is the aim of the night schools of Philadelphia. The feature work of the present sessions will be to Americanize all of the foreign elements of the population of that city and to make them all English speaking.

URGENT NEEDS OF OUR COUNTRY

An Attempt to Summarize the Imperative Needs of the United States if Our Country Is to Retain the Position of Leadership Which It Now Enjoys Seems to Indicate That the Business Men of This Country Have Not Given Thought to a Constructive Program—There Are Some Exceptions Which Appear in This Article.

Dr. Addison, Minister of Reconstruction in the British Cabinet, after making a careful survey of conditions in his country, has reached the conclusion that Great Britain has four imperative needs if that country is to remain among the great nations of the world.

He summarizes these needs as follows:

First—Better co-operation between capital and labor.
Second—Better conditions of life.
Third—Better training.
Fourth—Better industrial methods.

Believing the United States has similar needs, or at least has important problems to solve, the Editor of the BULLETIN forwarded a letter to all presidents of the Class "A" members of our Association, asking for opinions as to what are the imperative needs of the United States if our country is to retain the leadership which has come to us as a result of the war. Two definite questions were asked:

First: What will be the position of the United States among the leading nations of the world after the close of the war?

Second: What should be done in our country before the close of the war to insure a greater degree of efficiency on behalf of the United States during the reconstruction period?

Most of those to whom the questionnaire was addressed did not reply. Some replied that their duties were too great to admit of the preparation of such an article—others felt the time was not opportune to reduce the imperative needs of our country to a statement; in fact, there were many opinions, but taken as a whole the replies received indicated that the business men of this country have not thought out the problems of the United States which might be classed as "imperative." However, some definite statements were forthcoming, and these statements are printed that they may be read, and that they may cause our readers to concentrate on the fact that the United States has

problems which must be solved if our country is to retain the leadership which it now enjoys among the nations of the world.

During the war the financial center of the world has shifted from London to New York. The United States is, for the first time in its history, a creditor nation. We have loaned lavishly to our Allies. Instead of sending about $800,000,000 annually to Europe in payment of interest charges, a sum possibly twice as great will flow from Europe to the United States after the war is over, and during the reconstruction period the United States must furnish most of the material, and most of the leaders who will plan and execute the rebuilding of Europe. Notwithstanding the chaotic conditions in Russia, it is evident to all well informed students of international conditions that ultimately America will furnish the model after which a staple government may be established in that sorely stricken nation, and quite aside from our Allies, China and other nations of the Far East are looking to the United States for capital, for leadership and cooperation as never before in the history of the world.

As a basis for further consideration of what our own country must do if it is to rise to the opportunity presented by the war, the BULLETIN presents the following statements from presidents of class "A" member companies in our Association, whose positions in the business world entitle them to speak with authority:

Measures Imperatively Needed by the United States

By John A. Topping, Chairman of the Board, Republic Iron and Steel Company.

"Editor BULLETIN:

"Replying to yours of the 1st inst., to briefly summarize some of the protective measures imperatively needed by the country, to meet the demands of the reconstruction period following the war, I would suggest the following:

"1.—Increased transportation facilities, both by land and sea, with constructive amendments to existing laws for the encouragement of capital to invest in railroad securities and to operate ships in the overseas trade, under the American flag, a repeal of the Seamen and Ship Registry Act being necessary in order to establish a sound national policy to encourage and protect American shipping after the war.

"2.—Encouragement of immigration, by the removal of educational and racial restrictions.

"3.—Repeal or amendment to the Sherman Anti-Trust Act, so as to permit co-operation along practical lines, for the protection and extension of both foreign and domestic trade.

"4.—Revision of the tariff upward, for reasons of revenue and greater protection, suggested by post-war conditions.

"In support of these suggestions I would briefly state that transportation breakdowns during the war emphasize the necessity of increasing and improving our facilities to meet the necessities of post-war conditions. Ocean transportation particularly, if we are to become a maritime power, must be established on a competitive basis, if the operation of American owned ships is to be continued under the American flag—after the war. To accomplish this result, if necessary, subsidies should be established.

"As to immigration, having lost a large part of our labor, through emigration owing to the world's call to colors and anticipating further losses through death and disability owing to our own participation in the war, it is clearly suggested that something should be done to encourage increased labor supplies.

"The benefits of co-operation, as suggested by experience in promoting the war, emphasize, I think, the advantage of this great force for the promotion of business after the war. Furthermore, the business interests of this country should have the same opportunity given them as other nations extend to their business men for the encouragement of trade.

"As to the tariff, the necessity for increased Government revenue and the exposed position of both labor and capital under the present tariff law, to unfair competition, is generally admitted and is too obvious for discussion.

"The adoption of the foregoing principles should enable capital to maintain more harmonious relations with labor and also enable employers to maintain and extend the better working and living conditions that now exist in this country. This policy should also stimulate better educational facilities and better training of our working forces, for without general prosperity a progressive industrial policy cannot be maintained."

To Grasp the Opportunities Which the Coming of Peace Will Give the People of this Country, We Must Learn to Work Efficiently.

By E. M. Herr, President of the Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pennsylvania.

"Editor BULLETIN:

"In order to grasp the opportunities which the coming of peace should give the people of our country, they must learn to work efficiently—I mean "efficiently" in a very broad sense.

"The workman expects to raise his standard of living. This can only be done permanently by increasing the effectiveness of his work. There must be no restriction of output but the evidence of better efficiency will be an increase of production for the same physical effort and in the same time. A further increase will come from greater diligence. For these he can demand and will obtain an increased wage and so a better standard of living.

"To attain these results thorough training is necessary. We are suffering because of a lack of thoroughness in all kinds of occupations. This training should begin with the child in the cradle and should cease only with the grave. Parents, teachers, employers and finally the individual himself are all concerned in improving our thoroughness through training.

"In addition to thorough training, co-operation between employer and employe is necessary to secure those results which, when secured, will inevitably uplift both and secure for labor the higher standard of living it is rightfully striving to obtain.

"Nor is labor only required to improve. The employer must also see that business is administered in a modern and efficient way and that every reasonable opportunity is grasped to enable the employe to give him efficiency.

"This means co-operation, and in many ways most important of all is the proper and loyal co-operation without which no real success can be attained.

"I, therefore, agree with Dr. Addison as to three of the four needs if the country is to remain among the great nations of the world, namely:

"First—Better training.

"Second—Better co-operation between labor and capital.

"Third—Better industrial methods.

"Given these three, the fourth cited by Dr. Addison 'Better conditions of life,' is inevitable and must be attained."

The Most Imperative Need—a Fuller Meaning of the Word Democracy

By C. Louis Allen, President, Pyrene Manufacturing Company.

"Editor BULLETIN:

"In your circular of the 30th, you asked me what, in my opinion, is the imperative need of this country. I answer, a fuller realization of the meaning of the word, *democracy.*

"We are now engaged in a titanic struggle to make the world safe for democracy. To accomplish this, the immediate work is to overcome German military autocracy. Autocracy springs from selfishness and is diametrically opposed to democracy which implies, in theory at least, a harmonious co-operation in the spirit of good will and with a motive for service. Co-operation implies a working together of equals. This is the fundamental essence of democracy. We are calling for a greater co-operation, not only between labor and capital, but between business and the government, and among business men generally. The only thing that will ever accomplish genuine and thorough co-operation will be a deep realization of the democratic spirit. By preaching and practicing this doctrine, business men of this country can make a real contribution to the future of the nation."

Unity the Most Essential Factor if the United States Is to Retain Leadership

By Clarence H. Howard, President, The Commonwealth Steel Company.

"Editor BULLETIN:

"Unity expresses in a word that which, in my opinion, is the most essential factor in enabling the United States to retain the leadership which has come to us as a result of the war.

"We are learning, in a way that is new to us, to think nationally, and to understand how it is that California and Washington, for instance, are vitally interested in the things which affect New York and Florida.

"And in an even broader sense we are realizing that no nation 'liveth to itself alone' and that the correct solution of our future national and international problems can be found in an international fellowship of nations.

"Such considerations as improved industrial methods; better training and conditions of life; closer co-operation between employer and employe, etc., while very important per se, are in one sense only incidental to the fundamental national unity above indicated."

INDUSTRIAL TRAINING FOR THE WAR EMERGENCY

Being a Description of the Activities of the Section on Industrial Training of the Council of National Defense—How a Training School Was Started and What Results Were Secured.

The Council of National Defense is rather a complicated organization but one of its sub-divisions or sections is devoting its attention to industrial training as a war emergency measure. Mr. Percy S. Straus is chairman of the Executive Committee of this section and John Golden and C. R. Dooley are the other members directing this division of the work.

Considerable progress has been made. The problem of not only supplying sufficient labor but of training the worker so that the Government's war needs may be met as fully as possible is receiving the careful attention of this committee.

Quoting from one of the circulars which the committee has issued:

"The employment of women and other unskilled help puts an extra burden on the shoulders of the foreman, in requiring careful instruction and thorough supervision, and this responsibility must be squarely placed upon him, as his share of meeting the nations' needs. Unskilled labor should be carefully graded and put on comparatively simple work at first, such employes being steadily promoted as they acquire proficiency. Employment and training thus go hand in hand.

Education

"While it is believed that there is no full substitute and no better way, when properly conducted, than training in the shop for the work of the shop, under the present conditions every means possible should be taken advantage of, technical and trade schools should be called into full service in preparing workers, also, in some cases, the "Vestibule" plan made use of, by which a training room is established in the factory itself, for training candidates for positions in productive work, later, in the factory.

"It is suggested that an inventory be made of all the laboratory and work shop equipment of the technical and industrial schools of New England, and that a joint meeting of their Directors with the Committee be held to devise means for making this equipment most effective in training men and women for the essential industries.

Promotion

"It is believed that there is a vast amount of latent ability already in our industries awaiting opportunity, or the spur of sufficient incentive to be of great use in this emergency. It is the work of managers, foremen, etc., to pick such men from their working force, and to put the larger responsibilities squarely up to them. Even if many misfits occur in such selection it is believed the results will justify the trial.

"This will mean extensive re-adjustment, from the fact that foremen who are now driven to the limit with their work will not want to lose the services of men who may be selected from their Departments for these responsibilities; but here, again, tact on the part of the management in dealing with the situation, and added effort on the part of foremen to fill the gaps, will result in a temporary loss only."

Description of an American Factory Training Room

The following description of the establishment of a training school in an American factory manufacturing munitions and the results attained from the training school is given.

At first, it was the practice to bring the new employes into the shop, set them at the machines, and have them learn the work at the machines. When the new girls came into the shop they were very nervous—badly frightened—and did not get over this timidity for several weeks; they were set to work at either large or small machines, the like of which they had never seen before, and, naturally, were too nervous to do their best. Not only was their progress in learning slow, but they also took the time of the employes surrounding them in order that these employes might teach them, and in addition to this, they learned all the faults of those other employes.

Therefore, a Mechanical Training School was started.

This school was located in a well-lighted room, away from the factory, and placed therein were all the different types of machines upon which training was necessary. There was placed at the head of this school the most expert mechanic and operator in the shop. Particular care was taken to select a man who was a gentleman and who could get along with the women. The teachers, however, were in each case women, so that when the new girl employe would come into the school, the first impression she received would be meeting five women teachers, and she immediately made up her mind that if these women could do the

work, so could she. The women teachers were selected with care, thought being given not only to their skill as operatives, but also to their capacity, as teachers.

The employes were first selected with care by the Employment Department for the different classes of work that they were supposed to do, it being evident that some women were well fitted to handle certain heavy duty machines, while others could handle only the light machines on which some women could easily do their work standing up, while others should remain seated.

The system of teaching was well standardized. The teachers handled from two to five girls at one time, depending upon the nature of the work she was teaching. The teacher first explained the character of the metal in the part, the kind of tools that were used, and the new employe was carefully shown just what each tool was supposed to do—the machine being operated in order to illustrate this point. The girls were then permitted to start the work themselves, and each time they made an error, they were corrected in the most kindly manner, and encouraged in every way to do their best. We often found in the school that the selections for the different operations, as made by the Employment Department was not always the best, and employes were often shifted from one operation to another, until the one for which they were particularly suited was found, doing this in the school so that this problem would not have to be met in the shop.

These operators were carefully taught the use of gauges, as well as the use of the different tools. They were paid twenty cents per hour while they were being taught, and a careful record was kept as to their progress. The length of time required for teaching these operators varied with the class of work, but it ranged from three days to three weeks.

In from ten days' to three weeks' time we turned out from the school girls who could operate heavy hand turret lathes, on work requiring great precision. These girls, when entering the shop, would attack their machines with vigor and confidence, and it did not take more than three weeks for them to reach the high average of work shown possible by our time studies.

Taking as an extreme example the most difficult operation the following data is given: The base forgings were produced from aluminum on heavy hand turret machines. On this particular part there are fifty-six gauging points. The allowable limits ranged from five ten-thousandths of an inch to two thousandths of an inch. In January, 1916, the average production of thirty-one women employes was eight pieces per hour.

While the operators were apparently kept busy at this rate of production, careful consideration showed that there should be produced from these machines an average of thirty-five per hour, although even our most skilled men mechanics have not been able to come up to over twenty per hour. The old operators were put into the school, and within four weeks, after the new and old operators had been through the school, the average production was raised to over twenty-four pieces per hour—within two months the average was over thirty-five pieces per hour—and the average today is over fifty-five pieces per hour. The same results were obtained on all the work, such as machining, inspection and assemblage.

President Aley Disproves Germany's Claims to Efficiency

The National Educational Association in a recent Bulletin makes the following statement:

"The people of this country had the most exaggerated notion of German efficiency at the beginning of the war. We had all accepted without question the German claim of superiority in chemistry, physics, psychology, engineering and culture. Commissioners of education, state superintendents and state universities published bulletins supporting these claims and urging the adoption of the German system of instruction and education in this country. Nobody challenged these statements. These statements were accepted without investigation. Blackstone says that, "A truth never doubted is never half believed." According to that view it may not be a difficult matter after all to correct these false impressions in the minds of our people.

"President Aley, of the University of Maine, has been analyzing these claims in the light of actual facts and is prepared to show that every one of them is misleading and false. He looks upon the spreading of efficiency claims as a part of the general scheme of preparedness for war for the purpose of German world supremacy."

Headquarters of National Educational Association Now at Washington

The headquarters of the National Educational Association have been moved from Ann Arbor, Michigan, to Washington, D. C., and will hereafter be permanently located at the capital, at 1400 Massachusetts Avenue. The National Convention of the Association in 1918 will be held at Pittsburgh.

HOW TO GAIN SAFETY, LOYALTY AND EFFICIENCY

A Paper Prepared by L. E. Abbott, Safety Commissioner of the Oregon Short Line Railroad Company, and Read at the Recent Convention of the National Safety Council—A Plain Statement of a Philosophy Based on Human Characteristics.

By L. E. Abbott,
Safety Commissioner of the Oregon Short Line Railroad Company

In the fall of 1913 a strike was called in the mechanical department of a certain railroad. John Burns, one of the mechanics, had passed his fifty-ninth birthday and had enough years of service to his credit to entitle him, on his sixtieth birthday, to cease his work and be permitted to draw pension enough for him and his wife to live on to the end of their days. Burns had no bad habits. He was a good Christian man. He was looked upon by his employers as a faithful employe. However, he was somewhat feeble for a man of his age, and his "output" at best was not standard. He admitted if he had to go out into the field of competitive labor his earning power would be about fifty per cent of the ordinary man's. "Will Burns go out with the strike?" was answered in the negative by his social friends, the merchant with whom he traded, and also the railroad officials, because they argued first he had too much at stake and second it seemed impossible that the union would ask this old man to make such a sacrifice; but he was requested to go out and he did, saying: "I never expect to earn a whole day's wages again."

James Everett, a man of forty-eight, with a wife and a son, twenty-five years of age, worked his way from a brakemanship up to a position as one of the oldest passenger conductors in the service. His run necessitated his being on the road 20 days each month, for which he was paid straight time, $165. He had said to one of the railroad officials: "I am thoroughly satisfied with my work, and I would not trade my job for any job on the road. I do not lie awake nights worrying my hair gray as some officials do, and therefore I would not trade with them. It is my ambition to remain with the company during my working life and then become a pensioner." A strike was called and he again came to the officials of the company and said, "You may put me down as one of the men who will stay with the company;" but in a short time he came back and said: "I have changed my mind, I will have to go out on the strike. My wife and my son have

put it up so strong to me I feel I cannot stay with the company during the trouble."

Andrew Drew was a passenger engineer. He worked five and one-half hours a day on 20 days in the month, for which he was paid $225. He was a little under the pension age. He was asked to go out on the strike, the consequences of such a matter having been previously experienced by him. He was also asked by the railroad officers if he intended to remain with the company. He replied, "They have millions and I know they will beat us as they did before, but if I have to live with a pick and shovel the rest of my life, I shall go out." He manifested some venom, a very different attitude from that of the others.

Some very caustic remarks were made about John Burns. Some stated he had lost his reason and others listed him as an anarchist, but I say to you that neither of the accusations is true. He is an unusual man, a good and loyal citizen and trustworthy. He acted in harmony with his convictions. The other two men realized they were making a great financial sacrifice and were also determined to stand by their convictions.

These three men represent three important departments of a railroad, and I believe are representative of the majority of the workmen of those departments.

I have carefully investigated these facts and am able to vouch for their truthfulness. I have tried honestly and fairly to represent a condition in our present-day industrial organization by which we are confronted, and which, in my judgment, *is the problem.* I am thoroughly convinced that as long as this condition prevails among our workmen we cannot obtain the full measure of loyalty, and therefore cannot reach the desired standard of safety and efficiency.

Here it might be well to agree upon the object of our industrial organizations. So far as I have been able to discern there is but one object, and that is to better the human being. It seems to me there can be no other legitimate viewpoint. The human being is the all. His development and perfection must, therefore, be the one aim; and, therefore, the monetary returns must be looked upon as by-products. I contend that the lawful purpose of any man or group of men must be one that recognizes that progress, prosperity and contentment of the individual are the chief aims. Safety, loyalty and efficiency merely follow and do not precede the attainment of such aims.

If I am right about the object of our industrial organizations, then since every worker is a part of that organization it

follows that what is good for the organization is good for the individual, and vice versa. A member of an organization, like an organ of the body, has functions to perform, and to obtain the best results those functions must be performed in harmony with the activities of the other organs of the body. Then, may we not consistently say that an organization is no better than its worst element.

If we agree upon the foregoing, and that a condition of friction and discontentment prevails among the human element of the great industrial organizations, we may consistently ask is there a remedy and if so what is it. From my varied experience with the human being, ranging from the child in the schoolroom to the criminal, and including the workers of many of our industrial branches, I unhesitatingly say there is a remedy, and in my judgment, expressed in one word that remedy is CONTENTMENT in labor. But I want to go on record as saying that from my years of experience I am thoroughly convinced that contentment in labor cannot be bought with an increase of wages, neither can it be forced, but it can be induced by the application of the laws which govern the growth and development of man.

The beautiful rose growing in the garden with its charming colors, attractive fragrance and perfect form, the golden grain nodding in the gentle winds of summer with its hopes of reward, the mountain streams rippling down over their beds of rocks through the channels of majestic pines, the ponderous locomotive attached to palatial cars as it almost flies from ocean to ocean and is held to its path of safety by little rims of steel, are but evidences that physical results can be obtained only by conforming to physical laws. This we all know. Is it not within reason then to conclude that the human mind, the supreme guiding power of worldly things, is also conformant to laws? I answer in the affirmative without fear of contradiction, and I believe these laws are as simple and obvious to the casual observer as the laws of Nature. Why they are not applied more universally is the perplexing query in my mind. Let me mention one which I think is self-evident to all within the sound of my voice and which I believe must be applied in our work before we can obtain the desired results. It is this:

> The ordinary human being will be just as much interested in the organization of which he is a part as he is convinced the employer is interested in his welfare.

Then it becomes evident that the desired results can be ob-

tained only by a change in the attitude of the workmen, which change must come through a proper education.

In my earlier and more radical life I was thoroughly convinced that this discontentment in labor was chargeable to the "Master" on account of his inordinate desires to become rich at any cost. I admit I was mistaken and imagine I can see many causes on both sides for the present condition. During the last few years I have had a position as it were, between the men and the managers, from which viewpoint I could observe the doings and hear the reasons of both. I am now convinced that our present condition is largely the result of misunderstandings, misconceptions. Early in my experience when trying to "drive a bargain" for a personal injury to an employe, I was confronted by the following words of Mr. E. H. Harriman, the memory of whom makes me a better Christian, "In such cases I want practical Christianity applied." The spirit which seasoned that remark actuates and controls his successors so far as my personal knowledge goes, and, therefore, when I hear what I do on various occasions, I must conclude many of our laborers misunderstand.

Then, if we eliminate the discontent among our laboring men today, we must do it through education, tempered with justice. In the course of that education I suggest that the following subjects be not lost sight of:

First: A proper selection. A definite study must be made with the view of selecting a man who will prove satisfactory in the work to which he has been assigned.

Second: A central employment department should be established. In my judgment this department should not only have the final word as to who should be employed but it should have the final word as to who should be discharged. I believe that most of the disaffection, misunderstanding and discontent in labor today has been caused by "the boss," "the petty tyrant," who has risen to the position where he can extend his chest, swing his arms and utter a strain of profanity, concluding by "you are fired." This is probably due to the fact that the purpose of the organization, and therefore the object of the higher-ups, is a mystery to him. He interprets the rules which are meant to develop efficiency incorrectly and unjustly. A careful research by scientific men, who have been placed in our organization as efficiency directors, points out as one of the most serious leaks in our modern day organization the unnecessary turnover in labor, which is partially due to the great number of men who are dismissed from the services of the company during the year.

Third: Promotion. There seems to be nothing which causes more disaffection among the employes than the indiscriminate way of selecting foremen. Those who have been instrumental in bringing about a good result in an organization feel that they should share in the benefits achieved, and be recognized by a promotion. We should not overlook any opportunity to reward in the line of promotion according to the merit of the individual. Many organizations have sought foremen from the older men, but this should not necessarily be done. I suggest that efficiency records be kept and foremen be selected by merit.

Fourth: Training for officers. Before placing men in charge of a small squad of men to do effective shooting our Government trains them as officers. By analogy important it is that we teach our foremen the purpose of the organization and train them to handle men.

Fifth: We must adopt a definite plan for safety and betterment work, and a plan for the superannuated employe. Let me here call your attention to the great Union Pacific System relative to its pension system and insurance plan.

I have not attempted to work out in detail a course of education. For a definite plan I call your attention to the great work that is being done by The National Association of Corporation Schools. In conclusion, let me say that the work outlined above has thus far in our organizations been handled only by the Safety First Department. I am sure the Safety First organization of any company which contents itself with safeguarding the machinery and the method will fail. To obtain loyalty, which is the forerunner of safety and efficiency, we must devote our energies to the improvement of the human being.

Making Education More Practical

A bulletin issued by the Institute for Public Service of New York contains the following good advice:

"Adopt for the public schools the advice which President Hadley of Yale recently gave to colleges, that *tests of ability to do be substituted for tests of memory:* have more learning by doing in all subjects and grades; more pupil initiative; more drawing and writing for use and less writing and drawing for mere exercise; more figuring that needs to be done, more helping in school office work, more part-time work in industries, *more study of civics by rendering civic service, make every written or oral recitation in every subject an exercise in the exacting and practical use of English.*"

NEWS ITEMS ABOUT OUR MEMBERS

What Use Will Be Made of the Army Cantonments When the War Is Over—Graduating Exercises at the Lakeside Press—Interesting Items from the Baltimore Gas, Electric Light and Power Company.

What Use Will Be Made of the Army Cantonments When the War Is Over

By N. F. Dougherty,

Pennsylvania Railroad Company

Universal Military Training in some form is being advocated after the War. The Army Cantonments offer means that should be investigated.

Universal training should mean more than mere Military Training. It should also mean Industrial Training.

This is a War of machinery and Wars of the future will be even more so. The present army organization requires that nearly half of the enlisted men have some mechanical or industrial knowledge.

More important still, all of the civil machinery back of the Army is engaged in the manufacture of material that requires mechanical and industrial knowledge.

Industrial and Military Training has been the great source of German strength and a lack of training has been the weakness of England and the United States.

Our Democratic education makes us revolt at anything savoring of the compulsory. If we can make Training attractive and hold out a remunerative reward when it is completed, there would be no trouble in getting volunteers.

This subject is too big to attempt to work it out in detail at this time, but is a suggestion for further study. The following should be considered.

Use the Cantonment buildings for Industrial—Military Training Schools. These buildings will accommodate about 800,000 men. Running full capacity, they would graduate 200,000 trained citizens each year.

Entrance should be voluntary and education, clothing and board should be furnished free.

Boys 14 to 18 should be taken in this school; after gradua-

tion they should be required to drill at regular intervals, and they should also be required to atend summer training camps for a period of years. They would also automatically go into the Army in case of War. A few years would give us a trained army of more than 1,000,000 men.

The industrial training would increase very materially the industrial efficiency of the nation.

The discipline and training of boys between the ages of 14 and 22 would be of inestimable value in correcting juvenile delinquency.

Graduating Exercises of the Lakeside Press

Mr. E. E. Sheldon, of the R. R. Donnelly & Sons Company (the Lakeside Press of Chicago), advises the BULLETIN that his company has forwarded to each of our Class "A" members copy of an address delivered at the Third Annual graduating exercises of the School for Apprentices of The Lakeside Press. The graduation address was delivered by Professor Rollin D. Salisbury, Dean of the Ogden Graduate School of Science, The University of Chicago.

The program and the address for this occasion are works of art from the standpoint of printing. The design and printing was done by the apprentices of R. R. Donnelly & Sons Company, as was also a beautiful Christmas card which accompanied the other printed matter received.

Mr. Sheldon states that the graduating exercises of their Apprenticeship School is an occasion of more than passing interest. The boys who graduated had spent seven years learning their trade, and on the occasion when they receive their diploma it is the purpose of the employes of the company that the graduates occupy the center of the stage.

For many years the Lakeside Press has been known as one of the foremost industrial institutions of the United States, and this position has been gained by a carefully constructed policy which insures efficiency not only in operation, but also efficiency in the development of the capacities of the employes.

Educational and Welfare Activities of Montgomery Ward & Co.

"Store News," the house organ of Montgomery Ward & Company, publishes an interesting summary of the educational and welfare efforts of this company. They include medical department, dental department, consultation service for women

employes, recreation and rest rooms for women; free library, mutual benefit society, saving and loan association, evening classes for girls, boys and men and savings bank accounts.

Notes from the Goodyear Tire and Rubber Company

In a recent statement, Factory Manager Litchfield, of the Goodyear Tire and Rubber Company, said:

"The Goodyear School is organized to afford facilities, convenience and encouragement to all members of the Goodyear organization, to improve their knowledge and efficiency, to make them of more value to themselves and to the Goodyear organization—and to the country of which they are citizens."

Many of the employes of this company have already entered military service, and many more are taking the course in military drill which the company offers so as to be as nearly prepared as possible when the call comes to serve their country.

New classes recently organized are in conversational French, and also a class in telegraphy.

Baltimore Gas, Electric Light and Power Company

The Baltimore Gas, Electric Light & Power Company believes in a good library, and has established a library well stocked with books and periodicals dealing with a variety of subjects which should be of interest to the employes of that Institution. The usefulness of the library has steadily increased since its inauguration.

This company has learned by an experience of several years that correspondence courses taken without personal instruction results in so large a lapse on the part of the members of such classes that in the future no correspondence courses will be given without being safeguarded by personal instruction.

The company reports a long list of employes that are taking educational courses in such Institutions as the National Electric Light, accounting course; the National Commercial Gas Association—general salesmanship; Johns Hopkins University—engineering; Maryland Institute—mechanical drawing; the Alexander Hamilton Institute Course; Pace and Pace—accountancy; Young Men's Christian Association—business English and mathematics, and the different courses offered by the International Correspondence Schools. Some of the employes have enrolled in other similar institutions. On the whole this company has found its educational offers productive of excellent results.

Douglass Burnett is Chairman of the General Educational

Committee, and during the last three years has brought the educational activities of his company to a high standing of perfection.

Damage and Delays in Transportation

During the weeks just prior to the holidays there was much congestion in all lines of transportation, including parcel post. Not only was there congestion, but several packages sent out by the executive secretary were either destroyed or damaged. For some days prior to Christmas it was impossible to get express companies to accept consignments. We also have been advised that bound volumes sent out from this office were found in different express offices, and several volumes sent out by parcel post were reported lost. Conditions are now somewhat nearer normal, and if any of our members have not received bound volumes or other shipments, or if you have not received your regular consignment of the Monthly BULLETINS, if you will kindly notify the Executive Secretary's office the matter will have immediate attention.

NEWSY NOTES

Mr. E. J. Mehren, Treasurer of our Association, is serving as a member of the Mayor's Committee on National Defense in New York City. The purposes of this committee is to assist the Board of Education in its effort to give opportunity to the Non-English speaking aliens, which will enable them to understand not only the English language, but also our forms of government, and to make plain to them the advantages which are offered under our system of government.

The December issue of the *Mountain States Monitor* contains a list of nineteen employes of the Mountain States Telephone & Telegraph Company who have successfully completed the educational courses of the company, and have been granted certificates. It is information of this kind that causes our readers to realize that the industrial corporations of the United States are gradually reaching a real state of efficiency.

Kops Brothers, Class "A" members of our Association, have issued an annual report of the Nemo Mutual Service Executive Association. It's an interesting little booklet, which tells about their welfare and other employe relations. There is some valuable information regarding such activities as lunch room, medical

service, savings fund, thrift club, library, etc. Copies may be obtained by our members by writing directly to Kops Brothers, 16th Street & Irving Place, New York City.

The Norton and Norton Grinding Companies have issued an excellent little leaflet: "What to do in Case of Fire." The leaflet has been distributed to all their employes, and has an excellent educational value.

The National Society for the Promotion of Industrial Education with which many of the members of our Association are identified, will hold its 1918 convention at Philadelphia, February 21st to 23d, inclusive.

Mr. N. F. Dougherty, of the Pennsylvania Railroad Company, has succeeded S. Horace Disston as Secretary-Treasurer of the Philadelphia Chapter of our Association. Mr. Disston found his time completely taken up with increased duties which he has undertaken on behalf of Henry Disston & Sons, of which Company he is Treasurer.

On December 8th, without previous notification, F. C. Henderschott, Executive Secretary of our Association, was appointed Executive Secretary of the Federal Food Board for the State of New York. The appointment was put on the basis of a patriotic duty and could not be declined. The Executive Secretary, however, is dividing his time between his positions, and incidentally continuing his work as Manager of the Bureau of Education of the New York Edison Company. These are times when one is apt to be drafted into any branch of the service, and no one has the right to say "no."

The *Safety Bulletin* of the Midvale Steel Company calls attention to a fact which few people realize; that the death toll of industries is much larger than the death toll of battles, and 85% of the deaths in industries are preventable if industrial employes can be taught to exercise proper judgment and diligence. After all, safety is an educational problem.

Mr. A. S. Donaldson, Superintendent of Training for R. H. Macy & Company, and the Class "A" representative for that company in our Association, has become a member of the Retail Division of the Marketing Committee of our Association.

Mr. Weaver H. Rogers, formerly the Class "A" representative and Vice-President of the Pittsburgh Steel & Iron Foundries Company, from which organization he withdrew, but remained a member of our Association through Class "C" membership, is now Major in the Ordnance Department on the active list. Mr. Rogers has formed a company of his own known as the Weaver H. Rogers Company, and will be at home in Pittsburgh, First National Bank building, after the war.

Mr. James W. Miller, Secretary of Lever Brothers, Ltd., of Port Sunlight, England, in writing for a copy of the Educational Year Book of the New York Edison Company, states that booklets of this character are of great help to the English firms which have membership in our Association. Mr. Miller would appreciate educational year books issued by other Class "A" members of our Association. The Post Office address is: Lever Brothers, Ltd., Port Sunlight, Cheshire, England. Sir William Lever is a member of the firm.

C. E. Fitzpatrick, Class "A" representative for the Charles William Stores, and formerly employment manager for that company, has resigned to accept a position in the Ordnance Department at Washington, where he will have charge of employment, education and training of the civilian employes. Mr. Fitzpatrick has also resigned as Secretary-Treasurer of the New York Local Chapter.

It is the desire of the Editor of the BULLETIN to make the "Newsy Notes by our Member Companies" Department as complete and as helpful as possible. There are some of our members, however, who either do not publish house organs, or have neglected to place the BULLETIN on their mailing list. We should much appreciate news from all our member companies, but these are strenuous times, and unless the news reaches the Editor's desk in some form we cannot make this department of the BULLETIN as complete and as representative as we should like it. Will you not, Mr. Class "A" Representative, make sure that the BULLETIN is on the mailing list of your house organ, and, if possible, kindly forward any additional news items of the character that are published? Such co-operation will make the BULLETIN a better publication, and be mighty helpful to the Editor.

Education Must Not be Hampered by War

Speaking before the National Educational Convention at Portland, Ore., Julia S. Lathrop, of the Children's Bureau of the Department of Labor, strongly opposed any measures to reduce or limit the educational systems of the United States during the war. Among other things, she said:

"The countries which have borne the brunt of the war have indeed sacrificed the schooling of children, to their evident injury. This year, however, notwithstanding the increasing exhaustion of the war, England and France have taken determined measures to restore or to improve their old standards. In England the Board of Education has demanded a budget, the largest in the history of English education, with the purpose of raising teachers' salaries, restoring school buildings to school use, and increasing school efficiency.

"It is inspiring to know that certain younger countries have from the first refused any sacrifice of children's rights to education. This heroic struggle to protect the schooling of children in countries so desperately involved in war as are France and England, this brave insistence upon no reduction by the colonies which have sent men so freely and generously to the aid of England are in strange contrast with the spirit of the law passed by the largest state in this country permitting the school year to be curtailed five months; in strange contrast to the specious willingness to let children do their bit; in strange contrast with the suggestion that the Federal Child Labor law shall be suspended or repealed before it goes into operation.

"Today, as never before, it is certain that the public school teachers of America have an unparalleled power to guard the nation's children and to mould public opinion so that this country will insist that the schools shall gather momentum during this period of war in order that they may better cope with the inevitable disturbance of orderly life which war entails."

A Laboratory Course in Vocational Guidance

The first laboratory course in vocational guidance and education has been inaugurated by the College of the State of New York. The course will include the organization of the first vocational guidance bureau to be conducted at the college where children in the public schools of New York will be assisted in the choosing of a profession or a career. The subject of vocational guidance has been much discussed, but here is the first

concrete effort to make a direct application, and the experiment will be followed with much interest.

Making Civics a Vital Factor in Public Education

Recently a conference was held to discuss and formulate plans for changing the system of education in civics in the public schools of the United States. Commenting on this subject, Earl W. Crecraft, instructor in government at New York University, points out that "patriotic education and civics are inseparable. Unfortunately the subject of civics has in the past been presented largely by means of text-books. A study of many of these texts shows that they are lifeless and absolutely incapable of meeting the demands of the present time. They are of the same value in teaching the young to be good citizens as printed rule books are valuable to teach the young to play baseball. They are rules of government and nothing more. The way for a boy to learn baseball is to play the game himself. Most boys learn the game without consulting the rule book. In the same way pupils should receive instruction in civics by having created for them situations where they can learn through association. Books on the subject can easily be dispensed with.

"Perhaps certain secondary schools have made progress in this matter which collegiate and university men have not appreciated. In New Jersey a recent law, supplemented by a course of study issued by the State Department of Public Instruction, requires that in connection with the course in physical training, high school pupils must take community civics in their first year; patriotic knowledge in their second year, and problems in modern democracy in their fourth year. The latter course of study includes elements of practical politics, economics and sociology. All of this, as can be seen, is quite unlike the former civics which laid emphasis mainly on the constitutions and machinery of government to the exclusion of the functions of government."

The Foundation Stone of American Democracy

The foundation stone of American democracy is education, not only education for one generation, but education for *every* generation.—*Bulletin of the National Educational Association.*

"Technical education is the exaltation of manual labor, the bringing up of manual labor up to the highest excellence to which it is susceptible."

FAITH IN ABILITY: FAITH IN JUSTICE

"Successfully to accomplish any task it is necessary not only that you should give it the best there is in you, but that you should obtain for it the best there is in those under your guidance. To do this you must have confidence in the undertaking and confidence in your ability to accomplish it, in order to inspire the same feeling in them. You must have not only accurate knowledge of their capabilities, but a just appreciation and full recognition of their rights and needs as fellowmen. In other words, be considerate, just, and fair with them in all dealings, treating them as fellow-members in the great Brotherhood of Humanity. A discontented force is seldom loyal, and if its discontent is based on a sense of unjust treatment, it is never efficient. Faith in the ability of a leader is of slight service unless it be united with faith in his justice. When these two are combined, then, and then only, is developed that irresistible and irrepressible spirit of enthusiasm, that personal interest and pride in the task inspires every member of the force, be it military or civil, to give, when need arises, the last ounce of his strength and the last drop of his blood to the winning of a victory in the honor of which he will share!"

GEORGE W. GOETHALS.

GENERAL EDUCATIONAL NOTES

The W. F. Gable Department Store at Altoona, Pennsylvania, has inaugurated educational courses for its employes.

There is a movement on foot among the jewelry trade of New York City for the establishment of a jewelry class in the summer vocational schools.

About 100,000 school children entered the public schools of Boston at the beginning of the current school year.

The School Board of New York City has recognized the necessity for facilities through which women may secure business training. A course designed especially for women has been inaugurated in the Washington Irving High School, the instruction in which is of immediate practical value to private secretaries, stenographers, typewriters, clerical assistants, librarians, students, teachers, writers on general topics, and those in advertising or any other special field. A study will be made of the mechanics of writing, covering the editing of copy, compiling, preparation of manuscript for the printer and proofreading.

The Merchants' Association of New York City is co-operating with the Mayor's Committee on National Defense in a campaign to Americanize, through educational methods, the residents of foreign birth of the Metropolis. A careful survey shows that eighty per cent. of the total population of New York City is of foreign birth or speech. As a result of the survey which has been made it is felt that this condition must not continue and strenuous efforts will be made to amalgamate this heterogeneous population into true American citizens.

STANDING COMMITTEES

Sub-Committees of the Executive Committee

Program

F. C. HENDERSCHOTT, Chairman.
The New York Edison Company, New York, N. Y.

Duties:

To plan the work assignments of committees and the convention program.

Publications

E. J. MEHREN, Chairman.
McGraw Hill Publishing Company, New York, N. Y.

Duties:

To supervise the Association's publications.

Membership

W. W. KINCAID, Chairman.
The Spirella Company, Inc., Niagara Falls, N. Y.

Duties:

To be responsible for getting new members. To investigate the loss of old members.

Co-operation with Other Organizations

DR. H. M. ROWE, Chairman.
The H. M. Rowe Company, Baltimore, Maryland.

Duties:

To be responsible for co-operation with other organizations.

Training Educational Directors

C. R. DOOLEY, Chairman.

Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

Duties:

To supervise the experimental course arranged with New York University for training educational directors and instructors with a view to developing similar plans at other educational institutions.

Committees of the Association

Organization and Administration

A. C. VINAL, Chairman.
American Telephone & Telegraph Company, New York, N. Y.

Duties:

To determine the best methods of organization of educational work as a function of management in typical instances.

Methods of Instruction

J. K. BRUGLER, JR., Chairman.
Western Union Telegraph Company, New York, N. Y.

Duties:

To further determine the application of the laboratory, library and inspection trip methods.

Public Education

MYRON J. JONES, General Chairman.
The Sherwin-Williams Company, Cleveland, Ohio.

Section I—Elementary and Secondary Schools

C. E. SHAW, Chairman.
Dennison Manufacturing Company, Framingham, Mass.

Duties:

To determine ways by which member companies can best cooperate with these schools.

Section II—Continuation Schools

DR. PAUL KREUZPOINTNER, Chairman.
The Pennsylvania Railroad Company, Altoona, Pa.

Duties:

To report on the application of the Smith-Hughes Vocational Educational Law.

Health Education

SYDNEY W. ASHE, Chairman.
General Electric Company, Pittsfield, Mass.

Duties:

To suggest methods of improving the health of employes.

Employment

F. P. PITZER, General Chairman.
The Equitable Life Assurance Society, New York, N. Y.

Section I—Employes Selection and Job Analysis

H. A. HOPF, Chairman.
E. I. du Pont de Nemours & Co., Wilmington, Del.

Duties:

To determine how typical clerical and mechanical jobs can be analyzed as an aid in determining the kind of employe desired.

How can employes' fitness for particular typical jobs be determined by tests.

To determine records and organization necessary to best handle promotions and transfers.

Section II—Labor Turnover

F. P. PITZER.
The Equitable Life Assurance Society, New York, N. Y.

Duties:

To determine the best methods of calculating turnover.

To determine that per cent of turnover under typical conditions which can be accepted as normal.

Marketing

DR. LEE GALLOWAY, General Chairman.
New York University, New York, N. Y.

Section I—Advertising, Selling and Distribution

DR. LEE GALLOWAY, Chairman.

Duties:

To ascertain what organized training is desirable for those engaged in foreign trades.

Section II—Retail Salesmanship

MISS BUELAH KENNARD,
23 Park Ave., New York City.

Duties:

To determine how to teach a knowledge of merchandise and its uses as a basis of training for better service in retail selling.

Office Work Training

R. H. PUFFER, Chairman.
Larkin Company, Buffalo, N. Y.

Duties:

To determine under what conditions is organized training for office boys, clerks and stenographers advisable.

Technical and Executive Training

KENDALL WEISIGER, General Chairman.
Southern Bell Telephone & Telegraph Company, Atlanta, Ga.

Section I—Technical

W. M. SKIFF, Chairman.
General Electric Company, Cleveland, Ohio.

Duties:

To determine what ways can employers of technical graduates co-operate with technical schools.

Section II—Executive

NORMAN COLLYER, Chairman.
Southern Pacific Company, San Francisco, California.

Duties:

To suggest methods of promotion and training of minor executives in handling men and carrying out company policies.

Trade Apprenticeship

F. W. THOMAS, General Chairman.
The Atchison, Topeka & Santa Fé Railroad System, Topeka, Kansas.

Section I—Railroads

THOMAS G. GRAY, Chairman.
Southern Pacific Company, Sacramento, Cal.

Duties:

To determine what supervision of work is desirable for other than machinist apprentices in railroad shops.

Section II—Manufacturing

J. J. GARVEY, Chairman.
Western Electric Company, Inc., Chicago, Ill.

Duties:

To ascertain under what conditions is an apprentice instruction shop desirable in a manufacturing plant.

Section III—Steel

P. E. WAKEFIELD, Chairman.
Carnegie Steel Company, Duquesne, Pa.

Duties:

To ascertain what supervision of shop work is desirable for apprentices in steel mills.

Unskilled and Semi-skilled Labor

J. E. BANKS, General Chairman.
American Bridge Company, Ambridge, Pa.

Section I—Unskilled

H. T. WALLER, Chairman.
The B. F. Goodrich Company, Akron, Ohio.

Duties:

To determine best plans for Americanizing the foreign born.

Recommend standard educational programs for American (including negroes) unskilled workmen.

To determine best methods of teaching English to the foreign born.

Section II—Semi-skilled

CARL S. COLER, Chairman.
Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

Duties:

To determine best methods of instruction to bring operators up to standard rates on specific tasks.

Local Chapters

JOHN MCLEOD, Chairman.
Carnegie Steel Co., Pittsburgh, Pa.

Duties:

To be responsible for the relations with the Association's Local Chapters.

To supervise the organization of groups of members into Local Chapters.

To be responsible for the furthering of the Association's interests through the Local Chapters.

Nominating

JOHN MCLEOD, Chairman.
Carnegie Steel Company, Pittsburgh, Pa.

Duties:

To nominate candidates for the offices and executive committee as required by the constitution.

DIRECTORY OF LOCAL CHAPTERS

Pittsburgh Local Chapter

C. R. DOOLEY, Chairman,
Westinghouse Electric and Manufacturing Company.
P. E. WAKEFIELD, Secretary-Treasurer,
Carnegie Steel Company, Duquesne, Pa.

New York Local Chapter

JOHN T. SCANLON, Chairman,
Standard Fashion Company, New York, N. Y.

Philadelphia Local Chapter

MONT H. WRIGHT, Chairman,
John B. Stetson Company, Philadelphia, Pa.
N. F. DOUGHERTY, Secretary-Treasurer,
The Pennsylvania Railroad Company.

Chicago Local Chapter

WILLIAM R. DEFIELD, Chairman,
Montgomery Ward & Company, Chicago, Ill.
JAMES J. GARVEY, Secretary-Treasurer,
Western Electric Company, Inc.,
Hawthorne Station, Chicago, Ill.

POLICY AND FINANCE COMMITTEE

ARTHUR WILLIAMS, *Chairman*,
General Commercial Manager The New York Edison Company.

CLARENCE H. HOWARD, *President*,
Commonwealth Steel Company.

DR. JOHN PRICE JACKSON,
Commissioner of Labor and Industry of Pennsylvania.

A. A. ANDERSON, *Secretary Educational Committee*,
American Museum of Safety.

N. F. BRADY, *President*,
The New York Edison Company.

CHANCELLOR E. E. BROWN,
New York University.

GEORGE B. CORTELYOU, *President*,
Consolidated Gas Company of New York.

T. E. DONNELLEY, *President*,
R. R. Donnelley & Sons Company.

DR. JOHN FINLEY,
Commissioner of Education of New York State.

H. A. HALLIGAN, *Vice-President*,
Western Electric Company, Inc.

DR. ARTHUR A. HAMERSCHLAG, *Director*,
Carnegie Institute of Technology.

WILLIAM R. HEATH, *Vice-President*,
Larkin Company.

N. C. KINGSBURY, *Vice-President*,
American Telephone & Telegraph Co.

M. W. MIX, *President*,
Dodge Manufacturing Company.

JOHN H. PATTERSON, *President*,
The National Cash Register Company.

JAMES A. ROOSEVELT,
Roosevelt & Thompson.

DR. CHARLES P. STEINMETZ,
General Electric Company.

DR. HERBERT J. TILY, *General Manager*,
Strawbridge & Clothier.

JOHN MCLEOD, *Ex-President*,
The National Association of Corporation Schools,
Carnegie Steel Company.

F. C. HENDERSCHOTT, *Secretary*,
The New York Edison Company.

Salesmanship to be Taught in Chicago Schools

Girls who find employment as saleswomen in Chicago schools may hereafter get their education in salesmanship in the public schools. Classes to teach salesmanship, and exclusively for girls, have been established in several of the high schools of that city. When there is occasion for extra employes in the department stores, students of these classes will be given preference, thus enabling them to get practical experience while taking the course.

Class "A" Members

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